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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,646	03/03/2003	Shi-Wai S. Cheng	GP-302784	4399

7590 11/17/2005

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EXAMINER

GREENE, JASON M

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/763,646

Applicant(s)

CHENG, SHI-WAI S.

Examiner

Jason M. Greene

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 27 October 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

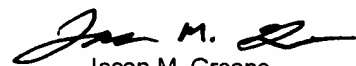
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attached.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____.
13. ☐ Other: _____.

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Jason M. Greene
Examiner
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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 27 October 2005 have been fully considered but they are not persuasive.

In response to applicant's argument that Ichikawa fails to teach the exhaust system comprising a housing, the Examiner contends that Ichikawa clearly discloses a housing in Figs. 2 and 3. While the Examiner agrees with the Applicants that Ichikawa does not explicitly recite the phrase "housing" in the specification, it is clear from the Figures that the filter (12) is contained within a structure reading the term "housing" as used in the instant claims. Furthermore, as shown in Figs. 2 and 3, a blowback air is used to remove particles trapped in the filter of Ichikawa. The blowback air is introduced into the housing structure (through valves 14) and conveyed through the filter (12) to transport the particles to a collector (such as in the collector tank 15 shown in Fig. 3) for disposal. Since Ichikawa shows the housing structure accommodating both the blowback air inlet and the collector tank, the housing structure of Ichikawa is clearly more than merely an exhaust pipe. Therefore, Ichikawa teaches the exhaust system comprising a "housing".

In response to applicant's argument that Ichikawa fails to teach the filter being ceramic, the Examiner notes that Ichikawa explicitly teaches the seal members being formed from a ceramic material and the honeycomb filter being formed from the same material as the seal members. In col. 6, lines 12-24, Ichikawa teaches the seal members being formed from ceramic fibers, cordierite (a ceramic) particles, or a lithium aluminosilicate (also a ceramic) foam. In col. 4, lines 49-50 and col. 6, lines 12-24, Ichikawa teaches the seal members and honeycomb filter being formed from the same material. Therefore, since the reference explicitly teaches the filter and seal members being formed from the same material and the seal members being formed from one of several different ceramics, Ichikawa clearly teaches the honeycomb filter being a ceramic filter.

In response to applicant's argument that Ichikawa fails to teach the filter being monolithic, the Examiner notes that Ichikawa clearly shows the filter (12) being a one-piece (i.e. seamless) structure in Figs. 2 and 3. Furthermore, in col. 4, lines 33-54, the reference teaches the honeycomb having a partition wall thickness of 430 μm and a cell density of 15.5 cells/cm². In lines col. 4, lines 45-47, Ichikawa teaches the term "cell density" being the number of cells per a unit area in a cross-section plane of the filter. Since the reference only discloses one value for the cell density and teaches the cell density being determined over a unit area of the filter, the cell density of the filter is seen as being uniform over the entire cross-sectional area of the filter. For example, if the cell density was not uniform, the reference would have to disclose the specific location(s)

where the cell density was measured, as opposed to using the broad phrase "a unit area". In other words, since the reference teaches the filter having a single cell density that can be determined over **any** randomly selected cross-sectional area of the filter, the cell density of the filter has to be uniform. Since the cell density and partition wall thickness are uniform across the cross-sectional area of the filter, the filter has to be a monolithic structure. Specifically, if the filter was formed from several different distinct sections, the section would have to be bonded together using a bonding material such as a ceramic adhesive layer. Since this bonding layer would locally alter the cell spacing and wall thickness, the filter would not exhibit the uniform cell density and wall thickness taught in col. 4, lines 34-48.

In response to applicant's argument that Ichikawa fails to teach the geometry of the cells, and consequently the plugs, being square, the Examiner again notes that Ichikawa teaches the honeycomb filter having a constant wall thickness and a uniform cell density in col. 4, lines 34-48. Since the filter has a constant wall thickness and a uniform cell density, the gas flow cells have to be square (as opposed to circular or rectangular). For example, if the gas flow passages were circular, the partition walls would have a convex shape that would vary in thickness along the radius of the cells. Specifically, the thickness of the partition wall between two adjacent circular cells would increase from a minimum thickness along a centerline of the cells to a maximum thickness at the outer radial edges of the cells. Similarly, if the cells were rectangular,

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the cell density would not be uniform since it would vary depending on the orientation of the rectangular cells in the selected cross-section.

In response to applicant's argument that Ichikawa fails to teach every other cell being sealed with a first end plug, the Examiner notes that Ichikawa explicitly teaches each cell being plugged at either an upstream end or a downstream end (see col. 4, lines 5-13) and depicts every other cell being sealed on a first end in Figs. 1A-3. Therefore, the reference explicitly teaches every other cell being sealed with a first end plug.

Conclusion


2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M. Greene
Examiner
Art Unit 1724


11/11/05

jmg
November 11, 2005